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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,236	02/18/2000	John G. Ellis	081862.P163	9691

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EXAMINER

MEHRA, INDER P

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/507,236

Applicant(s)

ELLIS, JOHN G.

Examiner

Inder P. Mehra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the ~~certified~~ copies of the priority documents have been received in this National ~~Stage~~ application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z. 6) ☐ Other:

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*Response to Amendment*

1. This is in response to an amendment dated 3/6/2006 which has been fully considered and made of record. Based on this amendment, claims 1, 3, 5-14 are now pending. Claims 2 and 4 have been cancelled. Based on this amendment, claim 3 has been amended.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, and 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Brueckheimer et al** ('261), in view of **Gibbs et al** (US Patent No. 6,683,877), hereinafter, **Gibbs**.

For claims 1, 5-6 and 11, **Brueckheimer** ('261) discloses, in reference to fig. 1, a method comprising:

- dynamically (**Brueckheimer** discloses “the VC –can be resized dynamically,-  
-while VC is continually active”, refer to col. 2 line 49-51), establishing ATM adaptation layer 2 (AAL-2) channel identifiers (CIDs), (**Brueckheimer** discloses “each circuit is identified uniquely by the combination of ---CID, and VC number--”, refer to col. 2 lines 51-55), on a call-by-call basis, (**Brueckheimer** discloses “common channel signaling involves ---reserved for call connection messages” (which means “on a call-by-call basis”), refer

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to col. 5 line 67 through col. 6 line 10. Further, Brueckheimer discloses “service types”, refer to abstract; AAL2 in col. 1 line 4-6, col. 1 line 44, col. 2 lines 40-60, col. 3 lines 25-26), using ATM standards-based call control, (col. 1 lines 53-55), signaling protocol (col. 5 line 65-col. 6 line 9);

Brueckheimer ('261) does not disclose expressly the following limitation, which is disclosed by Gibbs, as follows:

- “mapping the common CID to virtual path /virtual channel (VP/VC), (Gibbs discloses expressly and explicitly, “permanent virtual channel connections (VCC) are defined by respective virtual circuit indicators (VCCI), refer to col. 6 lines 1-3; further discloses, “ protocol can directly referred to the VCC in terms of---VPI---VCI-----alternatively, VCC is established, refer to col. 6 lines 25-45, col. 7 lines 3-7), that forms part of a virtual user network interface (UNI) to an ATM network, (refer to col. 7 , lines 53-55, and col. 7 lines 42-46, .”)
- wherein the standards based ATM call control protocol is selected from the list comprising UNI 3.1/4.0 and Q.2931”, as recited by claim 6, refer to col. 7 lines 42-46.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of mapping CID with VPI/VCI forming part of user network interface UNI to an ATM network. The mapping of channel identifier (CID) to VPI/VCI can be implemented by combining the system as taught by Gibbs with Breuckheimer et al ('261) at the

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user network interface (UNI) to an ATM network. The suggestion/motivation to do so would have been to match the traffic types and quality of service requirements.

For claims 7-10, and 12-14, Breuckheimer et al ('261) discloses the following limitations of the subject matter:

- multiplexing the time division multiplexed communication channel to one or more AAL2 VPs/VCs, *as recited by claims 9 and 13*, refer to col. 2 lines 42-49.
- mapping the multiple AAL2 VPs/VCs to the CIDs prior to mapping the CIDs to the VP/VC, *as recited by claims 10 and 14*, refer to col. 2 lines 52-55 and col. 10 lines 19-21.
- Computer readable instructions are embodied in a computer readable medium, *as recited by claim 12*, refer to col. 13 lines 1-13.

Gibbs discloses the following limitation:

- wherein the mapping is performed at a network edge device (gateway, fig. 1) communicatively coupled to the customer premises equipment, *as recited by claims 7 and 8* (end point, fig. 1)", refer to col. 6 lines 40-45.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the ~~capabilities of mapping and multiplexing~~ to be performed at the edge device coupled to the CPE. The mapping and multiplexing of channel identifier (CID) to VPI/VCI can be implemented by combining the system as taught by Gibbs with Breuckheimer et al ('261) at

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the end point, as taught by Gibbs. The suggestion/motivation to do so would have been to match the traffic types and quality of service requirements.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Brueckheimer et al** ('261), in view of **Caves et al** (US Patent No. 6,665,300), hereinafter, Caves..

For claim 3, Brueckheimer et al ('261) discloses A system comprising:

- means for providing end to end AAL2 switched voice service over a core ATM network, network access gateways to said core ATM network and network edge devices that convert between time division multiplexed TDM voice channels and AAL2 streams the latter used to communicate with the gateways, refer to '261 col. 1 lines 20-27, and col. 2 lines 1-3 ;
- wherein said providing means configures an originating network edge device to set up a call with a destination network edge device using an ATM Forum promulgated signaling protocol that specifies procedures for establishing, maintaining and clearing network connections, refer to '261 col. 1 lines 40-57;

Brueckheimer '261 does not disclose expressly the following limitation, which is disclosed by Caves explicitly, as follows:

- and wherein the originating network edge device maps a virtual path identifier and ~~virtual circuit identifier of a connection~~ through the core ATM network that connects with the destination network edge device, to a channel identifier (CID) of a designated AAL2 virtual channel connection (VCC) and sends this signaling information formatted in accordance with said ATM Forum

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promulgated signaling protocol to one of the network access gateways ((refer to *“dynamic control concerned with the instantaneous status of the individual AAL2 channels to reflect the cycle of connection set-up (established) and release, is controlled by the outgoing and incoming signaling procedures. Dynamic control maintains the following records: CID values that are allocated (mapping) but currently unassigned to AAL2 connections CID values currently assigned to AAL2 connections Pre-assigned CID values that are currently activated Pre-assigned CID values that are currently deactivated---”*, “refer to Caves’s col. 4 lines 25-45).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of mapping CID with VPI/VCI forming part of user network interface UNI to an ATM network. The mapping of channel identifier (CID) to VPI/VCI can be implemented by combining the system as taught by Gibbs with Breuckheimer et al (‘261) at the user network interface (UNI) to an ATM network. The suggestion/motivation to do so would have been to match the traffic types and quality of service requirements.

#### *Response to Arguments*

5. Applicant’s arguments filed 3/6/06 regarding claims 1, 3, 5-14 have been fully considered but they are not persuasive.

Applicant argue, “None of the references cited by the Examiner, including Brueckheimer ‘261, Gibbs, and Caves teaches or suggests a method in which AAL2 CIDs are established on a call-to-call basis using ATM standards-based call control signaling protocols and mapping the

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CIDs to a virtual path/virtual channel (VP/VC) that forms part of a virtual UNI to an ATM network.

In Caves, only a generic reference is made to a "AAL2 signaling function" without teaching or suggesting that an ATM standards-based call control signaling protocol be used together with the mapping of the CIDs to a virtual path/virtual channel that forms part of a virtual UNI to an ATM network. Note that the CID of a designated AAL2 virtual channel connection (VCC) as claimed is further mapped to the VP/VC of the virtual UNI. None of the relied upon references teach or suggest such a method for establishing an AAL2 switched voice network.

In response, Examiner states, Brueckheimer discloses "each circuit is identified uniquely by the combination of ---CID, and VC number--", refer to col. 2 lines 51-55, Brueckheimer discloses "common channel signaling involves ---reserved for call connection messages" (which means "on a call-by-call basis"), refer to col. 5 line 67 through col. 6 line 10. Further, Brueckheimer discloses "service types", refer to abstract; AAL2 in col. 1 line 4-6, col. 1 line 44, col. 2 lines 40-60, col. 3 lines 25-26), using ATM standards-based call control, (col. 1 lines 53-55), signaling protocol (col. 5 line 65-col. 6 line 9).

Gibbs discloses expressly and explicitly, "permanent virtual channel connections (VCC) are defined by respective virtual circuit indicators (VCCI), refer to col. 6 lines 1-3; further discloses, "~~control protocol can directly refer to the VCC in terms of---VPI---VCL---~~alternatively, VCC is established, refer to col. 6 lines 25-45, col. 7 lines 3-7, that forms part of a virtual user network interface (UNI) to an ATM network, (refer to col. 7, lines 53-55, and col. 7 lines 42-46, .") wherein the standards based ATM call control protocol is selected



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from the list comprising UNI 3.1/4.0 and Q.2931”, as recited by claim 6, refer to col. 7 lines 42-46.

Further, in response, it is stated that Caves discloses wherein the originating network edge device maps a virtual path identifier and virtual circuit identifier of a connection through the core ATM network that connects with the destination network edge device, to a channel identifier (CID) of a designated AAL2 virtual channel connection (VCC) and sends this signaling information formatted in accordance with said ATM Forum promulgated signaling protocol to one of the network access gateways ((refer to “*dynamic control concerned with the instantaneous status of the individual AAL2 channels to reflect the cycle of connection set-up (established) and release, is controlled by the outgoing and incoming signaling procedures. Dynamic control maintains the following records: CID values that are allocated (mapping) but currently unassigned to AAL2 connections CID values currently assigned to AAL2 connections Pre-assigned CID values that are currently activated Pre-assigned CID values that are currently deactivated—*”, “refer to Caves’s col. 4 lines 25-45).

In light of above explanation, arguments by the applicant are not persuasive.

6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Inder P Mehra 9/17/06*  
Inder P Mehra  
Examiner  
Art Unit 2617

*JOHN PEZZLO*  
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PRIMARY EXAMINER